

WHAT IS CLAIMED IS:

1                   1.       A method of screening drug candidates comprising:

2                   a) providing a cell that expresses an expression profile gene selected from the  
3 group consisting of an expression profile gene set forth in Table 1 or Table 2 or fragment  
4 thereof;

5                   b) adding a drug candidate to said cell; and

6                   c) determining the effect of said drug candidate on the expression of said  
7 expression profile gene.

1                   2. A method according to claim 1 wherein said determining comprises  
2 comparing the level of expression in the absence of said drug candidate to the level of  
3 expression in the presence of said drug candidate.

1                   3. A method of screening for a bioactive agent capable of binding to a  
2 colorectal cancer modulator protein (colorectal cancer modulator protein), wherein said  
3 colorectal cancer modulator protein is encoded by a nucleic acid selected from the group  
4 consisting of a nucleic acid of Table 1 or Table 2 or a fragment thereof, said method  
5 comprising:

6                   a) combining said colorectal cancer modulator protein and a candidate  
7 bioactive agent; and

8                   b) determining the binding of said candidate agent to said colorectal cancer  
9 modulator protein.

1                   4. A method for screening for a bioactive agent capable of modulating the  
2 activity of a colorectal cancer modulator protein, wherein said colorectal cancer modulator  
3 protein is encoded by a nucleic acid selected from the group consisting of a nucleic acid of  
4 Table 1 or Table 2 or a fragment thereof, said method comprising:

5                   a) combining said colorectal cancer modulator protein and a candidate  
6 bioactive agent; and

7                   b) determining the effect of said candidate agent on the bioactivity of said  
8 colorectal cancer modulator protein.

1                   5. A method of evaluating the effect of a candidate colorectal cancer drug  
2 comprising:

3                   a) administering said drug to a patient;

4                   b) removing a cell sample from said patient; and

5                   c) determining the expression of a gene selected from the group consisting of a  
6 nucleic acid of Table 1 or Table 2.

1                   6. A method according to claim 5 further comprising comparing said  
2 expression profile to an expression profile of a healthy individual.

1                   7. A method of diagnosing colorectal cancer comprising:

2                   a) determining the expression of one or more genes selected from the group  
3 consisting of a nucleic acid of Table 1 or Table 2 or a fragment thereof or a polypeptide  
4 encoded thereby in a first tissue type of a first individual; and

5                   b) comparing said expression of said gene(s) from a second normal tissue type  
6 from said first individual or a second unaffected individual;

7                   wherein a difference in said expression indicates that the first individual has  
8 colorectal cancer.

1                   8. A method for screening for a bioactive agent capable of interfering with the  
2 binding of a colorectal cancer modulator protein (colorectal cancer modulator protein) or a  
3 fragment thereof and an antibody which binds to said colorectal cancer modulator protein or  
4 fragment thereof, said method comprising:

5                   a) combining a colorectal cancer modulator protein or fragment thereof, a  
6 candidate bioactive agent and an antibody which binds to said colorectal cancer modulator  
7 protein or fragment thereof; and

8                   b) determining the binding of said colorectal cancer modulator protein or  
9 fragment thereof and said antibody.

1                   9. A method for inhibiting the activity of a colorectal cancer modulator  
2 protein (colorectal cancer modulator protein), wherein said colorectal cancer modulator  
3 protein is encoded by a nucleic acid selected from the group consisting of a nucleic acid of  
4 Table 1 or Table 2 or a fragment thereof, said method comprising binding an inhibitor to said  
5 colorectal cancer modulator protein.

1                   10. A method according to claim 9 wherein said inhibitor is an antibody.

1                   11. A method of treating colorectal cancer comprising administering to a  
2 patient an inhibitor of a colorectal cancer modulator protein, wherein said colorectal cancer  
3 modulator protein is encoded by a nucleic acid selected from the group consisting of a  
4 nucleic acid of Table 1 or Table 2 or a fragment thereof.

1                   12. A method according to claim 11 wherein said inhibitor is an antibody.

1                   13. A method of neutralizing the effect of a colorectal cancer modulator  
2 protein, or a fragment thereof, comprising contacting an agent specific for said protein with  
3 said protein in an amount sufficient to effect neutralization.

1                   14. A method for localizing a therapeutic moiety to colorectal cancer tissue  
2 comprising exposing said tissue to an antibody to a colorectal cancer modulator protein or  
3 fragment thereof conjugated to said therapeutic moiety.

1                   15. The method of Claim 14, wherein said therapeutic moiety is a cytotoxic  
2 agent.

1                   16. The method of Claim 14, wherein said therapeutic moiety is a  
2 radioisotope.

1                   17. A method for inhibiting colorectal cancer in a cell, wherein said method  
2 comprises administering to a cell a composition comprising antisense molecules to a nucleic  
3 acid of Table 1 or Table 2.

1                   18. An antibody which specifically binds to a protein encoded by a nucleic  
2 acid of Table 1 or Table 2 or a fragment thereof.

- 1 19. The antibody of Claim 18, wherein said antibody is a monoclonal  
2 antibody.
- 1 20. The antibody of Claim 18, wherein said antibody is a humanized  
2 antibody.
- 1 21. The antibody of Claim 18, wherein said antibody is an antibody fragment.
- 1 22. A biochip comprising one or more nucleic acid segments selected from  
2 the group consisting of a nucleic acid of Table 1 or Table 2 or a fragment thereof, wherein  
3 said biochip comprises fewer than 1000 nucleic acid probes.
- 1 23. A nucleic acid having a sequence at least 95% homologous to a sequence  
2 of a nucleic acid of Table 1 or Table 2 or its complement.
- 1 24. A nucleic acid which hybridizes under high stringency to a nucleic acid of  
2 Table 1 or Table 2 or its complement.
- 1 25. A polypeptide encoded by the nucleic acid of Claim 23 or 24.
- 1 26. A method of eliciting an immune response in an individual, said method  
2 comprising administering to said individual a composition comprising the polypeptide of  
3 Claim 25 or a fragment thereof.
- 1 27. A method of eliciting an immune response in an individual, said method  
2 comprising administering to said individual a composition comprising a nucleic acid  
3 comprising a sequence of a nucleic acid of Table 1 or Table 2 or a fragment thereof.
- 1 28. A method of determining the prognosis of an individual with colorectal  
2 cancer comprising:
- 3 a) determining the expression of one or more genes selected from the group  
4 consisting of a nucleic acid of Table 1 or Table 2 or a fragment thereof in a first tissue type of  
5 a first individual; and
- 6 b) comparing said expression of said gene(s) from a second normal tissue type  
7 from said first individual or a second unaffected individual;

8                    wherein a substantial difference in said expression indicates a poor prognosis.

1                    29. A method of treating colorectal cancer comprising administering to an  
2 individual having colorectal cancer an antibody to a colorectal cancer modulator protein or  
3 fragment thereof conjugated to a therapeutic moiety.

1                    30. The method of Claim 29, wherein said therapeutic moiety is a cytotoxic  
2 agent.

1                    31. The method of Claim 29, wherein said therapeutic moiety is a  
2 radioisotope.